

Geel 2000 language school
Prim 6
First term



Name: -

Class:-

Index

Lesson	Subject	Page
Them (1)		
Lesson (1)	Computer Network Devices	2
Lesson (2)	Technology and Artificial Intelligence	6
Lesson (3)	Evaluating Cutting-Edge Technology	10
Lesson (4)	Digital Research Skills	14
Lesson (5)	Operating systems	18
Lesson (6)	Website Design	22
Them (2)		
Lesson (1)	How to deal with electronic games	27
Lesson (2)	Protecting yourself from digital theft	32
Lesson (3)	Cyber security	36
Lesson (4)	Copyright and electronic financial trading	40
Lesson (5)	Cloud storage of files	44
Lesson (6)	Cloud computing application	48

Lesson1

Computer Network devices.

Networks

They are groups of people or things that are connected to each other for a common purpose.



Computers

They are electronic devices that create, process, and store information



- **Computer networks connect computers with each other to share important information and data**

Network Devices

- Computers need different network connection devices to transfer data.

1 Modem:

- It's a device that connects a local area network (LAN) to the internet.
- It converts the signal from the internet service provider (ISP) and transforms the signal into a digital signal that can be read by devices.



2 Switches:

- They work in a similar way to a hub, but they can send data to a specific device over a network, which helps make connection easier and faster.



➤ NOTE:

- Switches are intelligent devices but hubs are unintelligent.

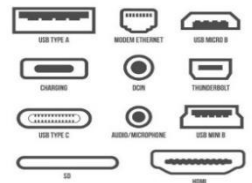
Making connection

There are two main ways to connect computers to a network: wired and wireless.

Wired Networks	Wireless Networks
They use physical wirings and cables, which are plugged into holes on devices, called ports	They connect devices without wirings by using, (wireless or Wi-Fi)

Ports

- They are **holes** (physical connectors) on devices where physical wirings and cables are plugged in.
- They are parts of a computing device available for connection with input and output devices.



Artificial Intelligence (AI)

- It is a computer application that perform complex tasks that simulate the thinking and performance of human element, such as the ability to learn and reason.
- By providing these technologies with **information**, **knowledge** and **possible answers** to all possible questions, the machine can give answers to the data provided, such as:
 - Writing an article on a topic.
 - Inquiring about historical events and their sequence.
- Also, AI works to **imitate sounds** when provided with the tone of voice of an actual human being.

Homework

1-Put (✓) in front of correct sentence and (x) in front of the wrong one:

1. Computer networks connect computers with each other, to share important information and data. ()
2. Wireless networks use physical wiring and cables which are plugged into ports on devices. ()
3. Devices can be connected without wiring (wireless or Wi-Fi). ()
4. A switch is a device that connects a local area network to the internet. ()
5. Modem converts the signal from the internet service provider (ISP) which transforms into a digital signal that can be read by devices. ()
6. Switches help to make connections easier and faster. ()

2-Read and circle the correct one.

1. (AI - EKB) is a comprehensive term for computer applications that perform (simple complex) tasks that simulate the thinking and performance of the human element.
2. If you want to make a network, then you need to have a (modem-refrigerator) that connects (local - wide) networks to the internet and you can connect the network in two ways wired and wireless.

Lesson 2: Technology and Artificial Intelligence.

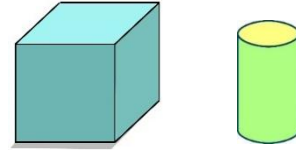
- ❖ Augmented reality (**AR**), virtual reality (**VR**) and artificial intelligence (**AI**) feel futuristic, but they are already being used in education and everyday life.

Augmented Reality (AR)

- Augmented reality (**AR**), combines the real world with a virtual world by adding computer-generated images.
- This can be done through the camera of a smartphone or tablet and will show a 3D model of what looks like the real world.



For Example:



- In a math class, students can use their smartphone camera to project 3D images of shapes like cubes or cylinders onto a flat surface, making it appear as if the shapes are in front of them.
- AR helps students become active participants in learning and makes learning more memorable.

Virtual Reality (VR)



It is a simulated 3D environment that allows users to explore and interact with the surroundings as if they were in reality.

- To experience VR, users often wear a VR headset that blocks out the real world and provides 360-degree views that immerse the user in another world.
- In the classroom, VR can take you to a world where insects and atoms are bigger than you, so that you can study them closely.
- It can take you to museum thousands of miles away or to a historical site hundreds of years ago.

- A **cardboard VR headset** is an **inexpensive** way to experience VR using almost any smartphone.

NOTE:

You can use the Egyptian Knowledge Bank to locate websites that include AR and VR experiences in Egypt.



Artificial Intelligence (AI)

- It is the ability of a machine, such as a computer to **think** and **learn**.
- A computer learns by **analyzing** the provided examples.

Example on using AI:

- 1- A smartphone or email program predicts the next word you will type learns from the words you have typed before.
 - 2- AI is used to unlock your phone with facial recognition.
 - 3- AI is also used to personalize social media content and search results.
- **AI runs in the background of programs, doing things such as:**
 - Filtering spam mail.
 - Matching a passenger with an available driver.



How can futuristic technology improve education and life?

futuristic technology can improve the lives of people of determination

For Example:

- 1- Someone with a visual impairment can use AR to see their family members up close.
- 2- Disabled individuals can use virtual assistants powered by AI to accomplish everyday tasks, such as making phone calls and navigating their computer using their voice or sign language.
- 3- VR can also immerse able-bodied people in experience that demonstrate the barriers disable people face every day.

Homework

1-Put (✓) in front of the correct sentence and (x) in front of the wrong one.

1. Using AR, students in a math class can point their smartphone camera at a flat surface and project a 3-D image like a cube or cylinder onto the surface. ()
2. Using windows helps students become active participants in learning and makes learning more memorable. ()
3. Users often wear a normal headphone that blocks out the real world and provides views that immerse the user in another world. ()
4. Artificial intelligence (AI) is the ability of the computer to think and learn. ()
5. Futuristic technologies cannot improve the lives of people of determination. ()
6. From the uses of AR, someone with a visual impaired can see their family members up close. ()

Cutting-Edge Technology examples

Artificial Intelligence

(AI)



Augmented Reality

(AR)



Virtual Reality

(VR)

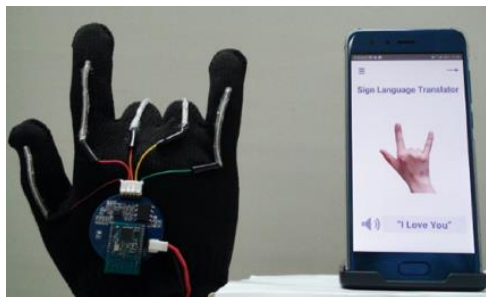


of cutting -edge t

- Cutting- edge technology is defined as the **latest** and **most** advanced version of a service or product.
- It has **transformed** life in ways that were unimaginable even a while ago.

In education

- It improves lives and inclusion in society for people of determination, such as the assistive technology **smart gloves** that empower **deaf people** to translate their signs in real time to spoken or text output.



User Experiences (UX)

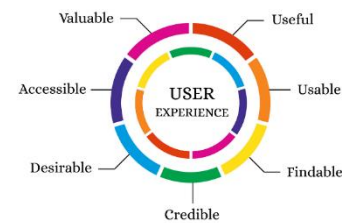
User experiences:

- They describe how people **use** and **interact** with a product and how they **evaluate** their experiences.
- User experience is often divided into different areas and can be **positive** or **negative**.

User experience categories:

How to evaluate the product?

7 factors that affect UX:



<i>User experience categories</i>	<i>Questions to guide my evaluation</i>
1- Useful	Is the product practical and meets my needs?
2- Usable	Is the product easy to use and understand?
3- Finable	If there is an issue with the product, can I find the solution?
4- Credible	Are the company and its products trustworthy?
5- Accessible	Is the product accessible for people with disabilities?
6- Desirable	Is the product pleasant to look at and interact with?
7- Valuable	Does the product improve my life or help me learn?

Meeting Needs

- User experience is interlinked with the development of products and services.
- The goal of Cutting-edge assistive technology, which comes in many forms, is always the same:
 - 1- To improve someone's independence.
 - 2- Consequently, to be include in the society.



How to choose the best assistive technology?

- There are several steps and considerations that include:
 - 1- Awareness of the person's abilities and challenges.
 - 2- Identifying and defining a specific need.
 - 3- Brainstorming possible cutting-edge assistive technology products.
 - 4- Designing and testing.
 - 5- Reviewing what works well, what doesn't work as well, and adapting to meet the user's needs.

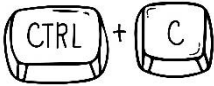
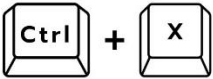
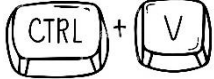
Homework

1 Choose the correct answer from a, b, c or d.

- 1..... is the latest and most advanced version of a service or product.
(a. Augmented reality b. Cutting-edge technology c. Assistive technology)
- 2.....helps people of determination, for example, screen magnification software and hearing aids.
(a. Augmented reality b. Cutting-edge technology c. Assistive technology)
3. Screen magnification software, hearing aids, and programs that turn speech to text and text to speech are examples of.....
(a. Augmented reality b. Cutting-edge technology c. Assistive technology)
4. Artificial intelligence (AI), augmented reality (AR), and virtual reality (VR) are examples of.....
(a. Augmented reality b. Cutting-edge technology c. Assistive technology)

Lesson4: Digital research skills

Useful Digital Search Tools

Command / OS	Copy	Cut	Paste
• Windows	Ctrl + C 	Ctrl + X 	Ctrl + V 
• Mac OS	Cmd + C	Cmd + X	Cmd + V

- **Copy**, **Cut** and **Paste** are some of the most commonly used word processing.
- They are very useful when copying, cutting or pasting:
 - Text
 - Images
 - Information for citing sources

Digital Search Tools:

1- Internet searches	2- specialized search engines	3- varied online libraries
----------------------	-------------------------------	----------------------------

- All of these tools are used to search for information, but the results will be different.
- Knowing what results, you need helps to inform which search tool you could use.

Search Engines



- Search engines help people search internet websites based on **keywords** and **phrases**.
- They are user-friendly, **very fast**, and often **give many results**.
- Be sure that the contents you select is **credible**, **accurate** and **unbiased**.

Examples: Google - Bing

Databases



- They are collection of information which are typically stored on a computer system and can be accessed for free through a school or library.
- A database: is a good place to search for information from Magazines, newspapers and reference books.

General Database	Subject Database
• It covers many subjects • EX: EKB • Note: A search for "self-driving car" on the EKB won't provide a lot of results but the results will be credible and accurate.	• It covers only one subjects, such as business or law. • Any results will be specific to your topic.

Library catalog

- It is database that includes all the items owned by a library.
- Library catalog search may include recently published books, including e-books with the most recent research about a subject.



Conducting a Database Search:

- **When you search any database:**
 - 1- Use a keyword search
 - 2- Review the results for subject headings and search again with those terms.
 - 3- You can use other database fields, such as author or journal title to narrow a search.
 - 4- Limiting a search to the last few years will help you find the most up-to-date research

Homework

1- Put (✓) in front of the correct sentence and (x) in front of the wrong one.

1. A library catalog is a database which includes all the items owned by a library. ()
2. There is only one way to get useful search results and to narrow your search you can. ()
3. Search engine is a good place to search for information from magazines, and newspapers. ()
4. Databases are collections of information which are typically stored in a computer system. ()
5. When doing research via internet, use your evaluation skills to ensure the content you select is credible and accurate. ()

2-Complete the sentences with the appropriate words in brackets.

(Databases - Search engine - paste - library catalogs)

- 1..... help people to search internet websites based on the key words and phrases.
- 2..... a collection of information which are typically stored in a computer system and can be accessed, for free, through a school or library.
3. is a database which includes all the items owned by a library.
4. Copy..... and cut are some of the most commonly used word processing commands.

Lesson 5: Operating Systems

Operating Systems (OS)

An operating system (OS) is the software that manages a computer's functions, such as **memory**, **drives**, **printers** and other **devices**.



- The operating system also manages accessible devices, such as **screen readers** and **magnifiers**.
- It runs a computer's software and hardware, and allows a user to communicate with the computer easily.

Computer operating system

Most computers come pre-loaded with an operating system, such as:

- 1- **Microsoft Windows**: it's the most popular worldwide
- 2- **Mac OS**: It runs on Apple computers.
- 3- **Linux and chrome OS**: It's used on about 2-3% of the market.

Mobile operating system

Mobile devices have mobile operating systems

- The most popular mobile OSs are **Android**, and **Apple IOS**, which is used on the iPhone and iPad.
- **Android** uses **open sources software**, which means a person can change and read the programming code.



- **Apple IOS** is **closed software**, it can't be seen or changed by the public.
- Both Android and IOS perform the same basics functions, such as messaging, web access, video chat and touch function.



Cutting-Edge operating systems

- Others types of operating system power (run) different types of cutting-edge technologies.

For example:

- 1- **The robot Operating System (ROS)**: is open-source software for building robot applications.
- 2- There are multiple operating systems powering **self-driving cars**, including those developed by **Apple**, **Microsoft**, and **Google** as well as **individual car companies**.

Let's identify

Device Type	Operating System (OS)
iOS	The operating system used on apple mobile devices.
Windows	The operating system used on Microsoft PCs
Android	The operating system used on mobile devices other than apple products.
macOS	The operating system used on Apples PCs

Programming Languages



Instructions for a computer are given in code.

- Over time, programming languages have evolved from simple machine language (**binary**) to high-level human like languages.
- Computer languages often share similarities, so once you learn one, it is easier to learn others.
- Programmers choose a language based on the purpose.
- programming languages are usually **open source**. Anyone can see, modify, distribute the code.
- Programmers use Hyper Text Markup Language (**HTML**) to create web pages.



HTML



- HTML is commonly chosen for website creation because it is easy to learn, use, and make changes.
- It allows creators to add elements such as texts, links, images, audios and even videos to their webpages.
- It is compatible with all the major web browsers.

Homework

1-Put (✓) in front of the correct sentence and (x) in front of the wrong one.

1. Operating system is used for managing computer's functions. ()
2. Android runs on mac devises. ()
3. An operating system includes accessible devices such as printer scanner. ()
4. Apple computers run on windows operating system. ()
5. The most popular mobile OSS are Android and Apple iOS. Microsoft Windows runs the most computers worldwide. ()
7. Apple computers run on macOS. ()
8. Mobile devices have mobile operating systems. ()
9. Windows is open-source software for building robot applications. ()
10. HTML is commonly chosen for website creation. ()

2-Match from column (A) with the suitable in column (B).

Column (A)	Column (B).
1. MacOS	a. The operating system used on Apple mobile devices.
2. iOS	b. The operating system used on Microsoft PCs..
3. Android	c. The operating system used on mobile devices other than Apple products.
4. Windows	d. The operating system used on Apple PCs.

Lesson 6: Website Design

HTML Tags



- **Hyper Text Markup language (HTML)** is the standard programming language used to **create static webpage**.
- It describes the **structure** of a web page.

HTML Elements

HTML consists of a series of elements, such as:

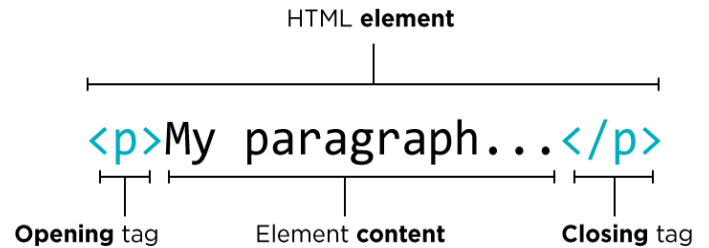
- 1- Headings
- 2- Paragraphs
- 3- Links
- 4- Images



- There are the building blocks of webpages.
- Web browsers read HTML documents and display the content according to the HTML tag.

❖ **Tags have three main parts:**

- 1- An opening tag
- 2- The content
- 3- A closing tag



❖ **Some examples for HTML tags:**

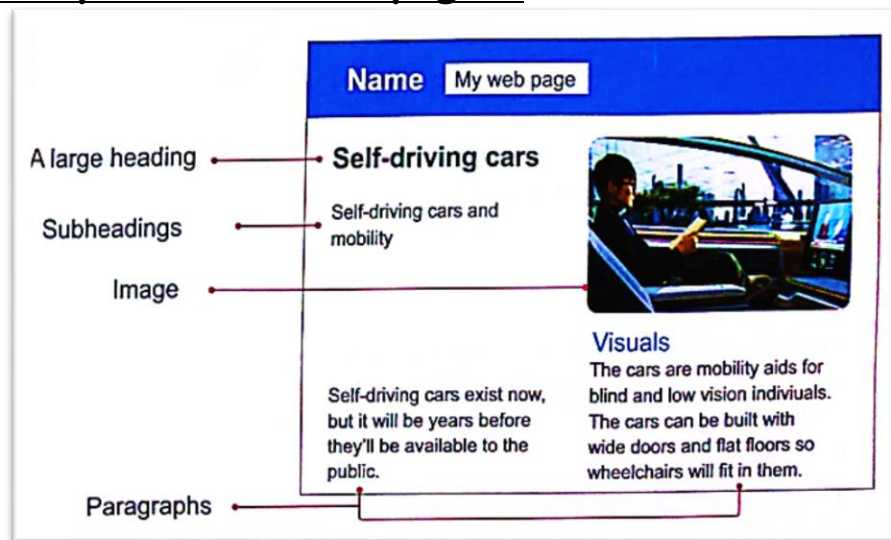
Identify these tags:

Large heading	large heading
Subheading	subheading
Smaller subheading	smaller subheading
paragraph	= to create a paragraph. = ending of paragraph tag
font size	< font size = "1">,
font color	< font color = red>< font color = "red">
hyperlink	 Visit the Egyptian Knowledge Bank
Emphasized text (italics)	<i> emphasized text </i>
Bold text	 bold text

Website Design and Accessibility features:

- HTML elements break up web pages to make them easier to scan, read, and navigate.
- HTML code can also help people with low vision to distinguish between parts of a web page.

Some HTML components of webpages:



➤ A large heading:

- It's at the top tag of the page.
- It catches attention.

➤ Image:

- It attracts attention.
- It can trigger different emotions.
- Add image and alt-text tags.

➤ Subheadings:

- They make the text easy to scan so a reader can find the information they want.

➤ Paragraphs:

- A paragraph usually has more than one sentence.
- Text broken up into Paragraphs makes it easy for the reader to scan for the information they want.

✚ TIP:

How to deal with the exam:

Guiding words	Items
Programming language	HTML is the standard programming language used to create web pages.
Web browsers - documents - HTML tag	Web browsers read HTML documents and display the content according to the HTML tag
Break up	HTML elements break up web pages to make them easier
HTML code - low vision - distinguish	An HTML code helps people with low vision to distinguish between parts of a web page
Subheadings-reader	Subheadings make the text easy to scan so a reader can find the information they want
Paragraph	A paragraph usually has more than one sentence
Images- alt-text	Add image and alt-text tags

Homework

1-Put (✓) in front of the correct sentence and (x) in front of the wrong one.

1. The tag `<i>.... </i>` refers to Emphasized text. ()
2. A paragraph usually has more than one sentence. ()
3. We use the tag `<a>...</a>` to create hyperlink. ()
4. The tag `<font> ... </font>` is used to change the font size only. ()
5. To change the text to bold we use the `<strong> ... <strong>` tag. ()
6. HTML elements break up web pages to make them easier to scan, read, and navigate. ()

2- Match

<u>A</u>	<u>B</u>
1. <code><a>...</code>	▪ For creating paragraph. (.....)
2. <code>...</code>	▪ Change the text to Italic. (.....)
3. <code><i>...</i></code>	▪ To create heading. (.....)
4. <code><h1>...</h1></code>	▪ Change the font size and color. (.....)
5. <code><p>...</p></code>	▪ To create hyperlink. (.....)

THEME 2

Digital safety and security precautions



Lesson 1: How to deal with electronic games.

- Electronic games which are played over the internet with friends, can be a lot of fun to play.
 - · Electronic games can help to promote critical and creative thinking, and encourage teamwork
 - · Online games can be fun to play but they can impact health.

Disadvantages of electronic games

1. Physical dangers
2. Psychological dangers
3. Security dangers

1 Physical Dangers

- Playing too often can affect your sleep cycle.
- It may keep you stimulated and prevent from falling asleep.
- It can strain your eyes, cause back problems because you stay hunched over while playing, and cause headaches.
- There's also a danger of gaining weight because you may not be exercising or eating properly while playing electronic games.



2 Psychological Dangers

You may become anxious and depressed because:

- You feel lonely in the real world or You are being bullied online. Electronic games can make some people aggressive, as some games promote violence.
- Electronic games can prevent some players from thinking rationally when facing situations.
- All of these factors can negatively affect your relationship with family and friends.

3 Security Dangers

- Multiplayer games, in particular, can put your security at risk.
- If you share too much **personal information**, strangers may be able to access your name, email, phone number, and address.
- Large gaming communities are filled with **cyberbullies**.
- **Hackers** can cause your information to be leaked and **viruses** are easily spread.



Responsible gaming

You can limit the dangers you are exposed to by:

1. Only playing games and chatting with people you know and trust.
2. Not using personal information in your username and passwords. · Not using a webcam.
3. You should accept limits that your parents set to prevent unhealthy gaming habits.
4. Make sure that gaming does not replace real-life activities like spending time with your family, meeting friends, homework, maintaining a healthy diet, getting enough exercise or sleep.
5. When you do encounter dangers, don't be afraid to tell your parents. They want to help you. That could include family discussions and increased supervision when using the internet.

Homework

1-Choose the correct answer:

1. Spending a lot of time playing electronic games can cause.....
(a. eye strain b. back problems c. both a and b)
- 2.....can cause your information to be leaked, and viruses are easily spread
(a. Cyberbullies b. Hackers c. Friends)
3. One of the physical dangers of electronic games is.....
(a. stealing data b. cyberbullying c. headaches)
4. One of the psychological dangers of electronic games is.....
(a. eye strain b. being depressed c. cyberbullying)
5. You should not share..... address, email, and phone number.
(a. games b. news c. cyberbullying)

2. Complete the following sentences using the words between the brackets:

(aggressive Back problems - webcam - Cyberbullies - personal information)

- 1.....is one of the security dangers of electronic games.
2. Some electronic games promote violence and can make some people.....
- 3..... is one of dangers of electronic games because you stay hunched over while playing.
4. Don't use a..... to limit the dangers of electronic games.
5. Don't share..... such as your name, email, phone number, and address.

Lesson 2: protecting yourself from Digital Theft.

- It is irresponsible to leave your devices at risk by not taking proper safety precautions.
- You have learned about the importance of strong passwords. Let's look at some more ways you can effectively protect your devices from theft.

Different features that you can use to protect your data

1 Passwords

Passwords with at least **eight** random **letters**, **numb**
symbols are the most secure.



2 Multi-Factor Authentication (MFA)

MFA requires at least **two ways** of identifying yourself, usually through **passwords**, **pins**, and **security codes** or personal questions.



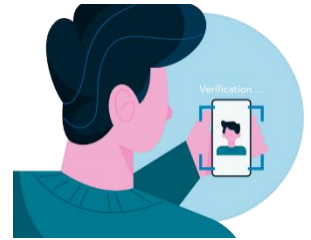
3 Fingerprint authentication

This type of authentication will **scan** your **finger** as a way of confirming it's you.



Facial recognition

- Facial recognition software will **scan** your **face** using your device's **camera**.
- This way, only the user's face can be used to open their devices or devices' apps.



5 Full Disk Encryption

Encryption protects your information so only you can access it on your device, as long as you have set your password.



Data Protection Law in Egypt

1- Companies:

- Companies are in particular need to protect their websites and their customers' information.
- In 2020, Egypt formed the **Data Protection Law** to protect its citizens. » Companies must **report immediately** if they have been victims of data theft, and let their customers know immediately as well.

2- Individuals:

- Individuals should report data theft too.
- If you think your data has been compromised, make sure to tell a parent or trusted adult, they can let the proper authorities know.

- You should also tell the family and friends you communicate with online. This way, they will not open any attachments or click on any links that come from your accounts.



Homework

1. Put (✓) or (X):

1. It is irresponsible to leave your devices at risk without protection. ()
2. It is not important for companies to protect their data. ()
3. Strong passwords contain letters, numbers and special characters. ()
4. The facial recognition feature allows only your face to unlock your device. ()
5. Fingerprint authentication allows you to lock your device if it is lost. ()
6. Multi-factor authentication (MFA) is not an effective way to protect your accounts. ()

2. Choose from column (A) what suits it in column (B):

<u>Column (A)</u>	<u>Column (B):</u>
1. Full disk encryption	a. is a type of authentication that usually scans your thumb to confirm your identity.
2. Multi-factor authentication	b. is a feature that allows you to lock your device remotely if you lose it.
3. Fingerprint authentication	c. requires at least two ways of identifying yourself.
4. Lock when lost	d. scans your face using your device's camera to confirm your identity.
5. Facial recognition	e. scrambles your information and can only be accessed if you enter a password

Lesson 3: Cyber security.

➤ You have learned a lot about online safety choices and strategies. Here is a brief recap.

V

- 1- Use safe web browsers, such as Google Chrome.
- 2- Use anti-virus protection on your devices
- 3- Keep your pages private; only allow friends and family to view your social media.
- 4- Use strong passwords and change them every three months.
- 5- Verify that the websites that you frequent are real, safe, and age-appropriate



X

- 1- Do not communicate with people you don't know or who make you feel uncomfortable.
- 2- Do not share your personal information online.



Types of Cyber Security Threats

Types of Cyber Security Threats



1 - Malware

- **Malware** is the greatest cyber security threat.
- **Scareware** is a type of malware that pretends to be a virus alert.
- Scareware tells you to click on the link to help remove it, but the link is a virus.
- Mobile malware can be problematic, and using unsecured Wi-Fi can expose you to malware threats

Note: No matter how cautious you are, you may still get tricked.

2 - Spoofing

- **Cyber criminals pretended to be a business or a known person, in order to trick you**

1-to provide your information.

1- Click on an unsafe link.

- **If you click on unsafe links, you are in danger of:**

1- Having your information compromised.

2- Money stolen.

3- Viruses are installed on your devices.



- **Examples of spoofing:**

1- A fake domain pretending to be a business.

2- A fake email account that has the name of a trusted service.

3- Personal acquaintances of your

How to deal with cyber security threats

- Stay calm, but take **swift** action.
- Inform your contacts immediately so they can avoid opening anything

Suspicious, so you can protect your contacts from the same cyber threat.

- Use **anti-virus** to do a sweep of your computer and remove any viruses.
- Confirm your **security** settings are up-to-date.
- Change all your passwords, your device password, email, social media, etc. even if you have been hacked only on one particular account.
- Report the threat to a trusted adult. They can report it to an internet service provider or get the authorities involved if needed.
- Creating a **personal online safety** plan can prepare you for potential future cyber threats, such as how to protect your personal devices and information from cyber criminals.

Homework

1. Put (✓) or (X):

1. Unsecured Wi-Fi can expose you to malware threats. ()
2. To be safe online, you should use safe web browsers. ()
3. It is not necessary to report the threats to trusted people. ()
4. You should install anti-virus to protect your device. ()
5. It is safe to communicate with unknown people online. ()
6. You should ensure your security settings are up-to-date. ()

2. Write the scientific term:

1. The greatest cyber security threat. (.....)
2. A type of malware that pretends to be a virus alert. (.....)
3. Cyber criminals pretended to be a business or a known person, in order to trick you. (.....)
4. It is used to do a sweep of your computer and remove any viruses. (.....)

Lesson 4: Copyright and Electronic Financial Trading.

Let's review what copyright (intellectual property rights) means!

Copyright: It includes written, visual, audio, video, and web materials.

Intellectual property rights: Means the invention, creation or idea of someone that is protected by law from being copied by someone else.

Creative Commons: It refers to works that have been granted permission to be shared by the creator.



- Works in data libraries, such as the Egyptian Knowledge Bank (EKB) is already approved for use.
- Egypt considers works to be in the public domain if the creator has been deceased for at least 50 years. No creator permission is required.

The Concept of Electronic Financial Trading



A Stock Exchange

- It is a market where buyers and sellers deal in units of company stocks.
- These stocks are called shares.
- **The Egyptian stock exchange allows citizens to invest in any market sector, such as:**
 - 1- Food
 - 2- Clothing
 - 3- petroleum
- **Smart investors** will research multiple companies before deciding which one to invest in.
- They **analyze** markets to see which companies' stocks go up or down.
- They will also be checking to see if the products or services offered are a good fit for them personally.

A Broker

- Is a person who handles the buying and selling of shares.
- In traditional settings, an investor will have a broker.



E- Trading

- Electronic financial trading (**e-trading**) has made the process of buying and selling shares more efficient.
- It provides the investor with more authority.
- » With the spread of the internet, electronic trading platforms are now common places.
- » It allows the investor to make trades on their own through websites or applications.
- » While investors can still use a broker, **e-trading** allows more independence and user-friendly options.
- » **Robo-advisors**: Are online applications that provide financial guidance and services.
- » E-trading provides access to many people who otherwise might not be able to invest.
- » It is also easier and faster for different companies to trade with one another, no matter where they are located.



Robo-Advisor Vergleich



Homework

1. Choose the correct answer:

1. On stock exchanges, stocks are called.....
(a. money b. shares c. e-commerce)
2. A./An..... is a person who handles the buying and selling of shares.
(a. investor b. broker c. hacker)
3. E-trading has made the process of buying and selling shares more.....
(a. difficult b. expensive c. efficient)
4. In traditional settings, an investor will have a.....
(a. broker b. bank teller c. instructor)
- 5..... are online applications that provide financial guidance and services.
(a. Social media platforms b. Video games c. Robo-advisors)

2. Choose from column (A) what suits it in column (B):

Column A	Column B
1 Robo-advisors	▪ made the process of buying and selling shares more efficient. (...)
2 E-trading	▪ is a person who handles the buying and selling of shares. (...)
3 A stock exchange	▪ are online applications that provide financial guidance and services. (...)
4 A broker	▪ includes written, visual, audio, video, and web material. (...)
5 Copyright	▪ is a market where buyers and sellers deal in units of company stocks. (...)

Lesson 5: Cloud Storage of Files.

Cloud computing

- It is the on-demand storing and accessing of data and programs via remote servers on the internet.
- Cloud computing enables users to access files and data easily and conveniently from anywhere and at any time.



Examples of Cloud Computing

1- Microsoft 365

With its application (*One Drive*)



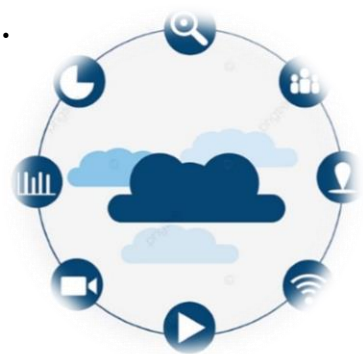
2- Google

With its application (*Google Drive*)



Remote Servers

Connect users who are not on the local area network (LAN) to access and manage data, files, and applications via the internet.



Advantages and disadvantages of cloud computing

✓

Advantages

- It frees up space on your devices by using cloud storage services.
- It allows you to log in and access your files from multiple devices, as long as you have internet service.
- It provides a **backup** for your files.
- It provides an extra layer of security by offering password protected data storage and **data encryption**.
- It allows you to directly share files with authorized users.

✗

Disadvantages

- It requires you to have an internet connection. If you lose your internet connection, you won't be able to access files that are only stored in the cloud.
- Cloud storage is often a **fee-based** service. If you want to store files, you will need to pay a fee. The more storage you require, **the higher the fee** you will pay.
- If the cloud service you are using is a victim of a **data breach**, you may become a victim as well, as your information may be compromised. However, while there is a small risk, cloud services are overall **extremely safe** and secure

Data Encryption

It converts data into **Data Branch** authorized user access.

It occurs when unauthorized parties gain access to confidential data and information.

The role of cloud computing in storing files

- » Having a document management system allows you to organize your documents so you can find them easily and quickly.
- » Create separate folders for different types of data, like photos, videos, audio files, and documents.
- » Separate school and personal information, with one folder for each.
- » Label folders and subfolders clearly to find what you are looking for easily.
- » Consider keeping separate folders depending on the file type, such as videos, photos, audio files, and text documents.

Strong Passwords



- Create strong passwords for files and take necessary security measures.
- Be sure to use a strong password for any account you have on a cloud storage platform, including Multi-Factor Authentication (MFA) for additional security.
- All the large and reputable cloud storage services offer MFA.

Homework

1.Put (✓) or (X):

- 1-Examples of cloud computing include Google Drive, OneDrive, and Google Chrome ()
- 2- Data encryption converts data into code to prevent unauthorized access. ()
- 3-Cloud computing does not offer any form of security for your data. ()
- 4- Cloud computing can help protect data from breaches by encrypting data. ()
- 5- Despite a small risk, cloud services are overall extremely safe and secure. ()
- 6-Cloud computing requires an internet connection. ()
- 7-A document management system does not help organize your documents. ()

2.Choose from column (A) what suits it in column (B):

Column (A)	Column (B)
1. Remote servers	▪ it occurs when unauthorized parties gain access to confidential data. (.....)
2.Data breach	▪ is an example on cloud computing. (.....)
3.Data encryption	▪ connects users who are not on LAN to access and manage data, files, and applications via the internet. (.....)
4.Microsoft 365	▪ is often a fee-based service. (.....)
5.cloud storage	▪ it converts data into a code to prevent unauthorized user access. (.....)

Lesson 6: Cloud Computing Applications

» Cloud computing is storing and accessing data or programs through the internet.

Microsoft 365 and Google Workspace

- Microsoft 365 and Google Workspace are the **most popular** software programs that deal with **cloud computing** applications. Both platforms include productivity apps and storage.
- Microsoft 365 offers a whole suite of productivity apps, **such as** Microsoft Teams, Word, Excel, and PowerPoint.
- Microsoft 365 email platform is Outlook.
- Microsoft 365 storage application is **OneDrive**.
- In summary, this platform provides everything you need.



1- Microsoft Word



When you select Microsoft Word, it opens up a new blank document that allows you to draft ideas, a story, or an assignment.

2- Power Point



PowerPoint can help you create a presentation.

3- One Drive

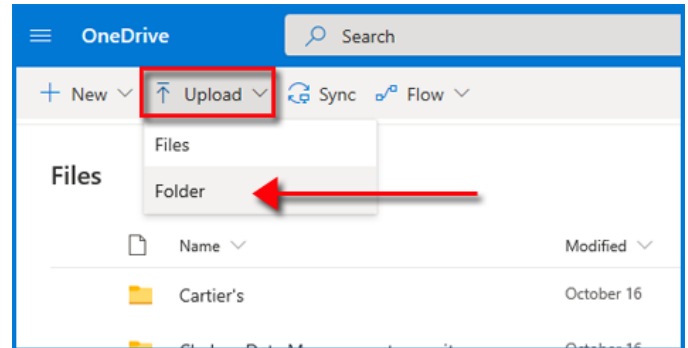


- OneDrive can help you share work with your friends.
- OneDrive allows you to store, share, and access files from any device.
- It is very user-friendly.
- You upload your files and then click on the Share option to share them with others.
- You can decide what level of access each person you share with gets, whether it's for viewing purposes only or editing.

How to upload files or folders to OneDrive?

1 In Chrome,

- Sign in the [Microsoft Office](#).
- Select [One Drive](#).



2 Select [Upload](#) >> [Files](#), or
[Upload](#) >> [Folder](#).

3 Select the files or folder you want to upload.

4 Select [Open](#) or [Select Folder](#).

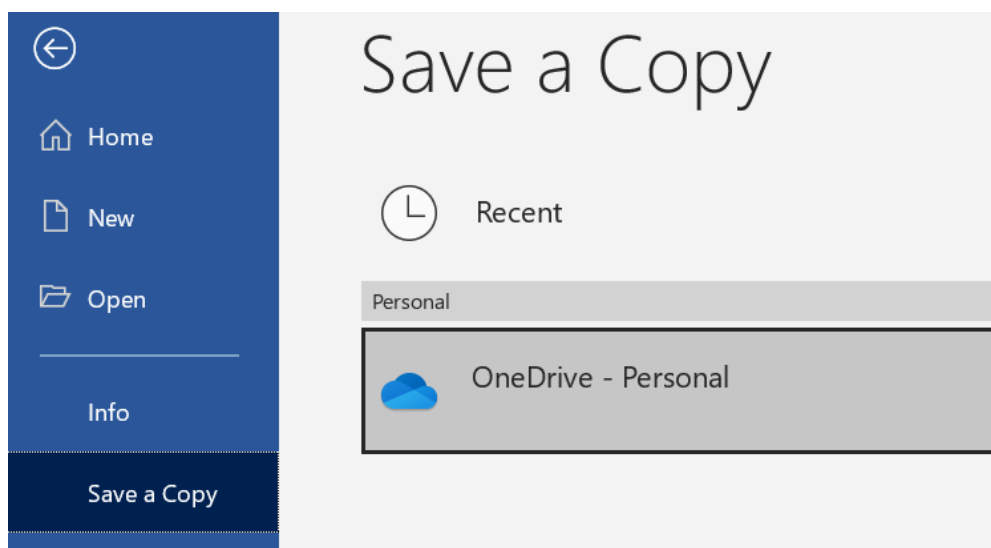
How to save a file to OneDrive?

Select [File](#) >> [Save a Copy](#) > [OneDrive - Personal/Company](#).

2 Select [Enter file name](#) here and type a name.

3 Select [Save](#).

4 You will then see the file in your OneDrive, the next time you open the



Homework

1. Put (✓) or (X):

1. Microsoft 365 and Google Workspace do not include productivity apps. ()
2. Gmail is the email platform for Microsoft 365. ()
3. Microsoft 365 provides everything you need. ()
4. Google Workspace is not popular software that deals with cloud computing. ()
5. To upload files or folders to OneDrive, you need to sign in to Microsoft Office first. ()

2. Choose the correct answer:

1. You can use OneDrive to upload.....
(a. files b. folders c. both a and b)
2. After uploading your files on OneDrive, you can click on the..... option to share a file with your friends.
(a. Share b. Open c. Outlook)
3. The Microsoft 365 suite includes.....
(a. MS Word b. Microsoft Teams c. both a and b)
4. When you select Microsoft Word, it opens.....
(a. new browser b. blank document c. online storage)
- 5..... is a Microsoft program that can help you create a presentation.
(a. PowerPoint b. Word c. OneDrive)